



FIG. 1

PF4 (**SEQ ID NO:2**) : ⁴⁷NGRRICLDLQAPLYKKIIKKLLES⁷⁰

IL-8 (**SEQ ID NO:3**) : ⁴⁶GRELCLEDPKENWVQRVVEKFLKRAENS⁷²

ATIII (**SEQ ID NO:4**) : ¹¹⁸QIHFFFAKLNCRLYRKANKSSKLVSANRLFGDKS¹⁵¹

ApoE (**SEQ ID NO:5**) : ¹³²ELRVRLASHLRKLRKLLRDADDLQKRLAVYQAG¹⁶⁵

AAMP (**SEQ ID NO:6**) : ¹⁴RRLRRMESESES²⁵

Ampiregulin (**SEQ ID NO:7**) : ²⁵KRKKKGKNGKNTTNTKKNP⁴⁵

FIG. 2

NEU2 (SEQ ID NO:8): 1 MASLPVLQKE SVFQSGAHA- -YRIPALLYL PGQQSLLAFA EQRASKKDEH
YR+P+LL + P +LLAF EQR S D H
NEU4 (SEQ ID NO:9): 1 MGVPRTPSRT VLFERERTGL TYRVPSSLPV PPGPTLLAFV EQRLSPDDSH

NEU2: 49 AELIVLRRGD YDAPTHQVQW QAQEVVAAQAR LDGHRSMNPC PLYDAQTGTL FLFFIAIPGQ
A +VLRRG +W A ++ A HRSMNPC P++DA TGT+ FLFFIA+ G
NEU4: 51 AHRLVLRRGT LAGGSV--RW GALHVLGTAAC LAEHRSMNPC PVHDAGTGTV FLFFIAVLGH

NEU2: 110 VTEQQQLQTR ANVTRLQCQT STDHGRTWSS PRDLTDAAIQ PAYREWSTFA VGPGBHCLQLN
E Q+ T N RLC V S D G +W S RDLT+ AIG A ++W+TFA VGPGBH +QL
NEU4: 109 TPEAVQIATG RNAARLCCVA SRDAGLSWGS ARDLTEEAIG GAVQDWATFA VGPGBHGVQLP

NEU2: 170 DRARSLVVPA YAYRKLHP-- ---IQRPIPS AFCFLSHDHG RTWARGHFVA QD-TLECQVA
R L+VPA Y YR I R P +F F S DHG RTW G V + ECQ+A
NEU4: 169 S-GR-LLVPA YYRVDRLEC FGKICRTSPH SFAFYSDDHG RTWRCGGLVP NLRSGECQLA

NEU2: 224 EVETGEQRVV TL-NARSHLR ARVQAQSTND GLDFQESQLV KKLVEPPPQG CQGSVISFPS
V+ G+ NARS L +RVQA ST++ G F ++ V L E G CQGS++ FP
NEU4: 227 AVDGGQAGSF LYCNARSPLG SRVQALSTDE GTSFLPAERV ASLPETAW-G CQGSIVGFPA

NEU2: 283 P----- ----- ----- ----- ----- ----- -----

NEU4: 286 PAPNRPDDS WSVGPRSPLQ PPLLPGVHE PPEAAVDPR GGQVPGGPFS RLQPRGDGP

NEU2: 284 ----- RSGPGSP QWLLYTHPTH SWQRADLGAY LNPRPPAPEA
WLLY+HP R +G L+ P P +
NEU4: 346 RQPGPRPGVSG DVGSWTLALP MPFAAPPQSP TWLLYSHPVG RRARLHMGIR LSQSPLDPRS

NEU2: 321 WSEPVLLAKG SCAYSDLQSM GTGPDGSPLF GCLYEANDY- --EEIVFLMF TLKQAFPAEY
W+EP ++ + YSDL S+ G P+G +F +CLYE +L++
NEU4: 406 WTEPWVIYEG PSGYSDLASI GPAPEGGLVF ACLYESGART SYDEISFCTF SLREVLENVP

NEU2: 378 LPQ

NEU4: 466 ASPKPPNLGD KPRGCCWPS

Substrate Specificity of Bacteria and Fungal Sialidases

Substrates	Sialidase activity*				
	Vibrio Cholerae perfringens (71Kd)	Clostridium perfringens (43Kd)	Clostridium perfringens (43Kd)	Arthrobacter ureafaciens	Salmonella typhimurium
Oligo- and polysaccharides					
$\text{II}^3\text{Neu5AcLac}$	100	100	100	100	100
$\text{II}^6\text{Neu5AcLac}$	53	44	19	157	0.4
Colominic acid ($\alpha 2\text{-}8$)	30	33	4.0	63	0.1
Glycoproteins					
Fetuin ($\alpha 2\text{-}3\text{>}\alpha 2\text{-}6$)	340	272	6.6	59	17
$\alpha 1\text{-Acid glycoprotein}$ ($\alpha 2\text{-}6\text{>}\alpha 2\text{-}3$)	1000	555	---	---	---
Submandibular gland mucin ($\alpha 2\text{-}6$)	400	139	5.1	---	---
Submaxillary gland mucin ($\alpha 2\text{-}6$)	---	---	---	56	---
Gangliosides	(360)	(350)	1.6	78	34
Gangliosides mixtures	(360)	(350)	1.6	78	285
Synthetic					
4MU-Neu5Ac	1580	605	58	---	1050

* Each value represents a relative sialidase activity when the activity directed toward $\text{II}^3\text{Neu5AcLac}$ is regard as 100.

FIG.4